Results: From 143 participants, 113 (79.6%) were younger than 35 years old, and only 11 (7.7%) were younger than 20 years old. 90% presented miscarriages on the first trimester. 19.6% had experienced a previous pregnancy loss; 33.6% had never given birth to a live child and 66.4% had delivered one or more live children. From 141 serum samples tested, 60.3% (85/141) were positive to any of the infections: 17 (12%) were *T. gondii* positive; 67 (47.5%) were CMV positive and 40 (28.4%) HSV positive. From 139 cervical samples tested, 34 (24.4%) were HPV+. Interestingly, 27.3% of HPV positive women have had repetitive abortions comparing to 17.4% of HPV negative women. Multiple infections were found in 42.4% of the seropositive samples, and importantly 19 (22.3%) were also positive to HPV cervical infection. One patient was positive to all infections.

Conclusion: Pregnancy loss is attributed to several factors including maternal age. It was worrisome finding a high frequency of spontaneous abortions at young age. Recognizing infections in the mother is an important part of prenatal care. HPV prevalences found were higher than previously reported for southeast Mexico. HPV studies in our region are particularly important because the incidence of cervical cancer is amongst the highest in Mexico. Also, the highest nationwide incidence of clinically identified genital herpes is reported for our State. Although our data are limited, the high prevalences of infectious agents often related to pregnancy loss and the high frequency of multiple infections found in women at reproductive age set important basis for further investigation.

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79.005

Maternal group B *Streptococcus* colonization: Prevalence, risk factors, phenotypical and genotypical characteristics in a Brazilian population

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Background: Maternal group B Streptococcus (GBS) colonization is considered to be the most important risk for invasive infections in the newborn. To reduce the incidence of neonatal infection two preventive strategies have been proposed: universal screening for all pregnant women or a risk-factor-based approach. However, prevention and treatment strategies have not yet been adopted in many developing countries. This study aims to estimate the prevalence, to investigate risk factors for GBS colonization and to describe phenotypical and genotypical characteristics of isolated strains from pregnant women in Goias-Central Brazil.

Methods: A cross sectional study was carried out among 198 pregnant women, > 32o weeksĭ gestation, attending a reference public health unit, from March to June 2009. Sociodemographic and obstetric profiles were investigated using a standard questionnaire. Samples of vaginal and rectal secretion were collected and placed into selective enrichment broth Todd-Hewitt. Tests for GBS identification Genetic diversity was assessed by pulsed-field gel electrophoresis (PFGE). Descriptive and analytic statistical tests were applied (SPSS 13.0).

Results: Thirty pregnant women were colonized by GBS yielding a prevalence of 15.2% (IC95% 10.5-20.9). Pregnant women younger than 20 years and with low income had higher risk of GBS colonization, in univariate analysis ($p < 0.05$). GBS was isolated from 28 vaginal and 14 rectal specimens. Twelve pregnant were vaginal and rectal colonized. All 42 strains were susceptible to penicillin. Three strains (7.1%) were resistant to erythromycin and two (4.7%) to clindamycin. 19 pulsotypes and four clusters were identified. Nine out 12 pars of positive strains (vaginal and rectal) were genetically identical, two were stricted related and one par was colonized by different strains. The same genetic profile was observed in more than one pregnant.

Conclusion: Socioeconomic and obstetrics variables had low predictive value for GBE colonization among pregnant women, reinforcing the need for universal microbiology screening strategy in this population, in order to prevent neonatal sepsis. A high genetic diversity of GBS was found among pregnant women in our setting.

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79.006

Puerperal group A streptococci (GAS) infection: Re-emergence of a dreaded disease - A case series

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Background: Puerperal sepsis due to GAS was responsible for two-thirds of deaths among childbearing women in the 18th and 19th centuries. This once feared complication of childbirth has declined throughout the twentieth century. Infection by GAS is now a rare cause of maternal morbidity and mortality. Recent sporadic reports in the literature indicate there may be a resurgence of serious infections caused by GAS.

Methods: We report on four late term pregnancies complicated by GAS infection resulting in either necrotizing infection or sepsis and profound multiorgan system failure (MOF).

Results: A 19 year old primagravida presented at 27 weeks with severe abdominal pain and vaginal discharge. Exam revealed extensive posterior cervical necrosis with culture confirmed GAS. She was treated successfully with penicillin. A 27 year old woman developed severe sepsis one day following a vaginal delivery. Vaginal and blood cultures were positive for GAS. She required massive volume resuscitation and pressor support. She was treated with ampicillin-sulbactam and clindamycin and recovered without sequela.

A 31 year old woman presented seven days after an uneventful vaginal delivery complaining of burning abdominal pain. She was found to be hypotensive with profound

sepsis. Emergent laporatomy revealed extensive myometrial infarction and necrosis with confirmed GAS infection. Her ICU course was complicated by MOF with acute renal and hepatic insufficiency and thrombocytopenia.

A forth, and nearly fatal puerperal GAS infection involved a young woman who presented five days after a vaginal delivery with fever, chills, and abdominal pain. Her prolonged hospital course was complicated by MOF and peripheral necrosis, with loss of limbs.

Conclusion: This report highlights the return of serious GAS puerperal sepsis. The fulminant nature of GAS sepsis poses important diagnostic and therapeutic challenges. Recent reports suggest GAS remains a formidable pathogen late in pregnancy and raises the question of whether GAS should be included in antenatal screening programs. The presence of GAS in vaginal culture may have significant clinical implications. The pathogenicity and capacity of this organism to cause overwhelming, life-threatening infection warrants further study to determine the true incidence of vaginal contamination in late pregancny and the potential efficacy of antibiotic prophylaxis.

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79.007

Potential impact of spouse's circumcision on herpes simplex virus type 2 prevalence among antenatal women in five northeastern states of India

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Background: Herpes simplex virus type 2 (HSV-2), the most common cause of genital ulcer disease worldwide has shown increasing evidence to have synergistic activity on human immunodeficiency virus (HIV) acquisition by two fold or more. So, there was a need to know the prevalence of HSV-2 to develop intervention strategy especially in the high HIV prevalent states of northeast India. A study was therefore conducted among antenatal women to assess the prevalence of HSV-2 infection as well the role of spouse's circumcision on HSV-2 prevalence.

Methods: A total of 1640 antenatal women from five different northeastern states of India, namely Assam, Arunachal Pradesh, Manipur, Meghalaya and Mizoram with diverse ethnic background were enrolled after informed consent. They were screened for IgG antibody status against HSV-2 using HerpeSelect 2 ELISA IgG kits form Focus Diagnostics, USA. A structured questionnaire was used to evaluate different risk variables.

Results: The median age of the subjects was 24 years (SD $\pm$ 4.8) with inter quartile age of 22-28 years. The overall prevalence of HSV-2 (IgG) positive was 8.6%, while prevalence was highest in Arunachal Pradesh (15%) and was lowest in Manipur (2.74%). There was a significant association of HSV-2 infection with history of vaginal discharge with pelvic pain ($p = 0.0001$) and genital ulcer ($p = 0.02$). Regular condom user's had a low HSV-2 prevalence of 1% compared to 10.3% in infrequent or non-condom users (OR = 11.1, 95% C.I. = 3.5 — 35.2, $p < 0.0001$). HSV-2 prevalence was 1.7% in women with circumcised spouses compared to 9.2% among uncircumcised spouse (OR = 5.7, 95% C.I. = 1.4- 23.4, $p = 0.01$). Prevalence was low among Muslims (3.8%) compared to 12.6% among Christians ($p = 0.0001$)

Conclusion: The study documented a variable difference of prevalence of HSV-2 among the different states of northeast India. The important finding of independent association with spouse's circumcision with HSV-2 sero-status in pregnant women brings to light the importance of circumcision in decreasing the transmission of HSV-2 in the community. This may be of vital importance as it can be implemented as a modifiable preventive measure to decrease the prevalence of HSV-2 which will ultimately help in lowering the HIV prevalence in the community.

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79.008

The ''PREVEN'' urban community randomised trial of a combined intervention for sexually transmitted disease prevention in Nepal

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Background: A community randomized trial, (PREVEN trial), was conducted to explore the impact of combined sexually transmitted disease interventions in urban Nepal.

Methods: The intervention were: (1) improved syndromic management of vaginal and urethral discharge available through pharmacies, with social marketing of condoms and treatment packages and referral to previously trained physicians for cases of pelvic inflammatory disease and genital ulcers, and (2) screening and treatment of sex workers (SW) reached through a mobile team every two months, along with presumptive treatment for trichomoniasis (TV) and bacterial vaginosis with metronidazole, and provision of free condoms. A baseline survey of STIs prevalence was undertaken in the general population (GP) and amongst SW and their clients in 4 cities in 2005 to stratify cities for randomisation to intervention and control arms of the trial.3 cities were selected for the trial. The impact of the interventions, was evaluated through surveys of STI prevalence. Testing for syphilis, GC, CT, TV and HIV were undertaken in the 20 randomised cities. Data analysis was blinded with respect to city identity until results were available for each infection where upon the prevalence of each infection in the matched intervention and control cities could be compared.

Results: The overall prevalences of STIs in the general population across the cities were as follows: males: gonorrhea 0.11%, Chlamydia 4.7%, syphilis (titer > 1:8) 0.29%, HIV 0.51%; females: gonorrhea 0.24%, Chlamydia 8.6%, syphilis (titer > 1:8) 0.20%, trichomonas 2.4%, HIV 0.17%. The overall prevalences of STIs in the female sex workers across the cities were as follows: gonorrhea 1.2%, Chlamydia 17.6%, syphilis (titer > 1:8) 1.3%, trichomonas 3.7%, HIV 0.41%.